

Documentation of Environmental Indicator Determination

RCRA Corrective Action Environmental Indicator (EI) RCRIS code (CA725)

Current Human Exposures Under Control

April 24, 2002

Facility Name: Railway Maintenance Products Division (Portec Rail Products, Inc.)
Facility Address: 900 Freeport Rd., Aspinwall, PA15215
Facility EPA ID #: PAD 004336814

1. Has all available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been considered in this EI determination?

☐_YE_ If yes - check here and continue with #2 below.

☐ If no - re-evaluate existing data, or

☐ if data are not available skip to #6 and enter "IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues.

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

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2. Are groundwater, soil, surface water, sediments, or air, media known or reasonably suspected to be “contaminated”¹ above appropriately protective risk-based “levels” (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	Yes	No	?	Rationale / Key Contaminants
Groundwater	<u> YE </u>	<u> </u>	<u> </u>	TPH, 1,1-dichloroethene, 1,1,1-trichloroethane(1,1,1-TCA), 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE) chloroethane and chloroform
Air (indoors) ²	<u> </u>	<u> NO </u>	<u> </u>	
Surface Soil (e.g., <2 ft)	<u> </u>	<u> NO </u>	<u> </u>	
Surface Water	<u> </u>	<u> NO </u>	<u> </u>	
Sediment	<u> </u>	<u> NO </u>	<u> </u>	
Subsurf. Soil (e.g., >2 ft)	<u> </u>	<u> NO </u>	<u> </u>	
Air (outdoors)	<u> </u>	<u> NO </u>	<u> </u>	

 If no (for all media) - skip to #6, and enter “YE,” status code after providing or citing appropriate “levels,” and referencing sufficient supporting documentation demonstrating that these “levels” are not exceeded.

 YE If yes (for any media) - continue after identifying key contaminants in each “contaminated” medium, citing appropriate “levels” (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

 If unknown (for any media) - skip to #6 and enter “IN” status code.

Rationale and Reference(s):

- a) RCRA Site Inspection Report of November 2001
- b) Environmental assesment Report, November, 1988
- c) Final Report, Statewide Health Standard, 1998
- d) PADEP, Environmantal cleanup program, approval letter, dated November 30, 1998
- e) Technical Report. Summary of activities, 1994

Footnotes:

¹ “Contamination” and “contaminated” describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based “levels” (for the media, that identify risks within the acceptable risk range).

² Recent evidence (from the CO Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above contaminated groundwater than previously believed. While this is a rapidly developing field current evidence (1/99) suggest that indoor air in structures located above (and adjacent to) contaminated groundwater should not be assumed to be acceptable without physical evidence.

The facility groundwater is contaminated with Total Petroleum Hydrocarbons (TPH), 1,1-dichloroethane

(1,1-DCA), 1,1-dichloroethene (1,1-DCE), 1,2-dichloroethane (1,2-DCA),
1,1,1-trichloroethane (1,1,1-TCA), Tetrachloroethene (PCE), 1,1,2-Trichloroethane (PCE),
chloroethane and chloroform.

The facility soils were contaminated with TPH, 1,1-DCA, 1,1,1-TCA, ethylbenzene, toluene, total xylenes, chloroform, hexane, and methylene chloride. Until 1989 a total of 9 underground storage tanks (UST), as well as a total of 37 drums were excavated from the site. A total of 2,750 tons of contaminated soils were treated and disposed on the site in 1985. There is no known active source of soil contamination present on the site now.

From 1929 to 1989, when all operations on the facility were ceased, the 20 acres of property was used to assemble railroad maintenance equipment. Paints, thinners and degreasers were used in the manufacturing operations. Waste produced by manufacturing operations included xylene paint liquid, paint sludge, phenol solutions, paint filters, and spent solvents. Recently the property is used as a warehouse for retail goods.

From 1989 until 1998 few environmental assessments and corrective actions took a place on the site. In 1990, PADEP issued a Consent Order which called for the additional groundwater (GW) and soil investigation on the site. Five (5) GW monitoring wells were installed on the site. From 1989 to 1996 they were monitored annually; since September, 1997 - quarterly.

The GW sampling results from 1989 to 1998													
		GW monitoring well 1			GW monitoring well 2			GW monitoring well 3			GW monitoring well 4		
		1989	1992	1998	1989	1992	1998	1989	1992	1998	1989	1992	1998
1,1-DCA	RBC 800 µg/l	24	38	<5	23	21	<5	580	340	140	<5	1700	230
1,1-DCE	MCL 7 µg/l	<5	12	<5	<5	<5	<5	<5	63	11	200	140	23
1,2-DCA	MCL 5 µg/l	<5	<5	<5	<5	<5	<5	8	<5	<5	16	25	<5
1,1,1-TCA	MCL 200 µg/l	820	930	130	370	240	49	1200	840	200	<5	310	370
PCE	MCL 5 µg/l	<5	5	<5	<5	<5	<5	<5	<5	<5	71	6	22
1,1,2-TCA	MCL 5 µg/l	<5	<5	<5	<5	<5	<5	8	<5	<5	<5	7	<5
chloroethane	RBC 3.6 µg/l	-	-		-	-	-	-	-	<10	-	-	560

The GW monitoring well #5, installed in January, 1991, demonstrated low toxicity concentrations during all monitoring events through 1998. The GW under the site is flowing toward to the Allegheny river.

From March, 1998 analytical results for all on-site GW monitoring wells are below nonuse aquifer nonresidential MSCs.

According to the PADEP, environmental cleanup program, “the final report ...demonstrated attainment of the non-residential statewide health standard for GW at the Protec Rail Products, Inc. facility”. The cleanup program was approved by PADEP in accordance with the provisions of the Land Recycling and Environmental Remediation Standards Act (Act 2) on November 30, 1998. A monitored natural attenuation is going on the site.

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3. Are there complete pathways between “contamination” and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

Potential Human Receptors (Under Current Conditions)

“Contaminated” Media	Res.	Worker	Const.	Tresp.	Recreat.	Food3
Groundwater	<u> NO </u>	<u> NO </u>	<u> </u>			<u> </u>
Air (indoors)	<u> NO </u>	<u> NO </u>				
Soil (surface, e.g., <2 ft)	<u> NO </u>	<u> NO </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Surface Water	<u> NO </u>	<u> NO </u>		<u> </u>	<u> </u>	<u> </u>
Sediment	<u> NO </u>	<u> NO </u>		<u> </u>	<u> </u>	<u> </u>
Soil (subsurface e.g., >2 ft)	<u> NO </u>	<u> NO </u>		<u> </u>		
Air (outdoors)	<u> NO </u>	<u> NO </u>	<u> </u>	<u> </u>		

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors’ spaces for Media which are not “contaminated”) as identified in #2 above.
2. enter “yes” or “no” for potential “completeness” under each “Contaminated” Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential “Contaminated” Media - Human Receptor combinations (Pathways) do not have check spaces (“ ”). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

- NO If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter “YE” status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).
- If yes (pathways are complete for any “Contaminated” Media - Human Receptor combination) - continue after providing supporting explanation.
- If unknown (for any “Contaminated” Media - Human Receptor combination) - skip to #6 and enter “IN” status code

Rationale and Reference(s): a) RCRA Site Inspection Report of November 2001
b) Environmental Assessment Report, November, 1988
c) Final Report, Statewide Health Standard, 1998
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4. Can the exposures from the complete pathways identified in #3 be reasonably expected to be “significant”⁴ (i.e., potentially “unacceptable” because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable “levels” (used to identify the “contamination”); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable “levels”) could result in greater than acceptable risks)?

 NO If no (exposures can not be reasonably expected to be significant (i.e., potentially “unacceptable”) for any complete exposure pathway) - skip to #6 and enter “YE” status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to “contamination” (identified in #3) are not expected to be “significant.”

 If yes (exposures could be reasonably expected to be “significant” (i.e., potentially “unacceptable”) for any complete exposure pathway) - continue after providing a description (of each potentially “unacceptable” exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to “contamination” (identified in #3) are not expected to be “significant.”

 If unknown (for any complete pathway) - skip to #6 and enter “IN” status code

Rationale and Reference(s): a) RCRA Site Inspection Report of November 2001
b) Environmental Assessment Report, November, 1988
c) Final Report, Statewide Health Standard, 1998
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5. Can the “significant” exposures (identified in #4) be shown to be within acceptable limits?

YE If yes (all “significant” exposures have been shown to be within acceptable limits) - continue and enter “YE” after summarizing and referencing documentation justifying why all “significant” exposures to “contamination” are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

_____ If no (there are current exposures that can be reasonably expected to be “unacceptable”)- continue and enter “NO” status code after providing a description each potentially “unacceptable” exposure.

_____ If unknown (for any potentially “unacceptable” exposure) - continue and enter “IN” status code

Rationale and Reference(s): a) RCRA Site Inspection Report of November 2001
b) Environmental Assessment Report, November, 1988
c) Final Report, Statewide Health Standard, 1998
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6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

 YE Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the PORTEC Rail Products, Inc.
EPA ID # PAD PAD 004336814, located at 900 Freeport Rd., Aspinwall, PA15215.
under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

 NO - "Current Human Exposures" are NOT "Under Control."

 IN - More information is needed to make a determination.

Completed by (signature) /s/ Date 6/20/03
 (print) Ioff, Victoria
 (title) Remedial Project Manager

Supervisor (signature) /s/ Date 6/20/03
 (print) Gotthold, Paul
 (title) Branch Chief
 (EPA Region or State) EPA, Region III, PA Operations Branch

Locations where References may be found:

1650 Arch Street, 3WC22
RCRA Facility Investigation Report, March 1995;
EPA files.

telephone and e-mail numbers

(name) Ioff, Victoria
(phone #) 215-814-3415
(e-mail) Ioff.vickie@epa.gov

final Note: The Human Exposures EI is a Qualitative Screening of exposures and the determinations within this document should not be used as the sole basis for restricting the scope of more detailed (e.g., site-specific) assessments of risk.